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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/686,393	10/14/2003	Mark E. Seader	FWF Camshaft US Cont	6486
33549	7590	02/07/2005	EXAMINER	
SANTANGELO LAW OFFICES, P.C. 125 SOUTH HOWES, THIRD FLOOR FORT COLLINS, CO 80521			CHANG, CHING	
			ART UNIT	PAPER NUMBER
			3748	

DATE MAILED: 02/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/686,393

Applicant(s)

SEADER ET AL.

Examiner

Ching Chang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on November 5, 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,5,6,8-15 and 26-37 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,5,6,8-15 and 26-37 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

This Office Action is in response to the amendment filed on November 5, 2004. Claims 2-4, 7, and 16-25 are cancelled, and new claims 26-37 are added as requested.

### ***Specification***

1. The amendment and the Preliminary amendment filed on November 5, 2004 and October 14, 2003 respectively, are objected to under 35 U.S.C. 132, because it introduces new matter into the disclosure. 35 U.S.C. 132 states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure (US Patent 6,631,701) is as follows:

- “significant “ before and “ having an important effect “ after “ lubricant pressure gradient (27) “ respectively, and “ significant gradient “ after “ within this area of “ in Paragraph [0039] (starting from “ Now referring primarily to Figures 3 and 4, “ to “ the cam surface lubrication supply duct aperture(s) (28). “).
- “ because, as shown in Figure 3, the aperture is outside the area of significant gradient “ after “ aperture (28)” in Paragraph[0040] (starting from “ As shown primarily by Figures 3 and 4 “ to “ the cam surface lubrication supply duct aperture (28). “).

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- “ significantly “ before “ effect the migration “, and “ because, as shown in Figure 3, the gradient is no longer significant “ after “ surface (21) ” in Paragraph[00402] (starting from “ in certain applications “ to “ the corresponding journal surface (21) “).

Applicants are required to cancel the new matter in the reply to this Office Action.

***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. ***Claims 1, 5-6, 8-15, 26-37 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.***

More specifically, “ significant “ before “ pressure “, and “ and wherein said aperture is located outside said significant pressure gradient “ in claims 1, 26, and 37 are new matter.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. ***Claims 26-28, 32, and 37 are rejected under 35 U.S.C. 102(b) as being anticipated by Magnan et al. (US Patent 5,186,129).***

Magnan discloses a camshaft (21), comprising: a plurality of bearing means (16A-16D), wherein each of said bearing means has a corresponding lubrication supply conduit (26); a hollow camshaft (21) rotatably journalled in said plurality of bearing means; and a plurality of camshaft lubrication supply ducts (28), wherein each said camshaft lubrication supply duct traverses between a journal surface (18) of said hollow camshaft and an interior surface (23) of said hollow camshaft, and wherein each said camshaft lubrication supply duct rotatably aligns with said corresponding lubrication supply conduit, whereby lubricant transfers from said corresponding lubrication supply conduit to interior of said hollow camshaft and thereby establishes a significant pressure gradient in the interior of said hollow camshaft (created as 21 rotating relatively to 16; Figs. 2-3); a first cam lobe (24A) having a cam surface, wherein said first cam lobe has a location on said hollow camshaft adjacent to said journal surface on said hollow camshaft; a first cam surface lubrication supply duct (36) traversing said cam surface of said first cam lobe and said interior surface of said hollow camshaft wherein said first

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cam surface lubrication supply duct has an aperture (an opening of 36 to 23; Fig. 2) located on said interior surface of said hollow camshaft, and wherein said aperture is located outside said significant pressure gradient; wherein each said cam surface lubrication supply duct is differentially configured to supply an amount of lubricant to substantially equalize wear of a plurality of cam surfaces; and further comprising a second cam lobe (24A) having a cam surface, wherein said second cam lobe has a location on said hollow camshaft adjacent to said journal surface on said hollow camshaft; further comprising a second cam surface lubrication supply duct (36) traversing said cam surface of said second cam lobe and said interior surface of said hollow camshaft; and further comprising: a block having a least one cylinder; a reciprocal means (piston) slidingly engaged to the surface of said cylinder; a reciprocal movement to rotational movement conversion element (crankshaft) rotatably responsive to said reciprocal means and rotatably journalled in bearings (14); a cylinder head coupled to said block (See Fig. 1); at least two conduits communicating with each of said at least one cylinder; at least one valve coupled to each of said at least two conduits, wherein said at least one valve is operationally responsive to said cam surface of said cam lobe of said hollow camshaft; wherein said engine comprises an automobile engine.

The recitation “ for use in an aircraft engine “ in claim 26 has not been given patentable weight because the recitations occur in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not

depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

In addition, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963).

### ***Response to Arguments***

6. Applicants' arguments filed on November 5, 2004, with respect to the rejection(s) of claim(s) 1 under 35 USC 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. In addition, upon further consideration of Magnan reference, the Examiner's statement of " Magnan.....fails to disclose a significant pressure being build up in the interior of said hollow camshaft. " (See Page 5, the Office Action mailed on May 5, 2004) is incorrect and is withdrawn.

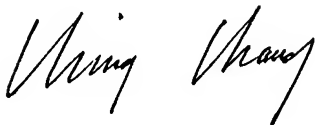
**Conclusion**

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ching Chang whose telephone number is (571)272-4857. The examiner can normally be reached on M-Th, 7:00 AM -5:00 PM.

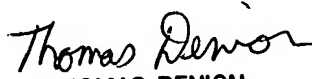
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Denion can be reached on (571)272-4859. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Patent Examiner



Ching Chang

  
THOMAS DENION  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3700